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Description

DISPLAY DEVICE WITH A LUMINOUS DISPLAY BASE

BACKGROUND OF INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a display device, and more specifically, to a display device with a luminous display base.

[0003] 2. Description of the Prior Art

[0004] Nowadays computer technology and the internet are developing very fast and are changing the lives of people. Displays are more and more important for people,and allow people to view information from the internet on the displays. Nowadays, the technology of displays develops very fast from the traditional monitor to the liquid crystal display (LCD) and the plasma display with advanced technology. The LCD and plasma displays are implemented in domestic electric appliances now, like the LCD TV and

plasma TV, and they have advantages of light weight, thin thickness, large-sized, wide angle of vision, high-speed reaction, and high image quality, and so on. So they will substitute for traditional color televisions and many manufacturers are looking forward to the latent capacity of the products.

[0005] However if the conventional display device includes a base, the base is always only designed for the supporting the display or only has a variation of the outward appearance. So it is a pity that no other special functions are applied on the base.

SUMMARY OF INVENTION

[0006] It is therefore a primary objective of the present invention to provide a display device with a luminous display base to solve the problems mentioned above.

[0007] Briefly summarized, a display device includesa display and a display base. The display base includes a housing and a luminous module installed inside the housing for emitting light.

[0008] These and other objectives of the present invention will no doubt become obvious to those of ordinary skill in the art after reading the following detailed description of the preferred embodiment that is illustrated in the various fig-

ures and drawings.

Brief Description of Drawings

[0009] Fig.1 is a block diagram of a display device according to the present invention.

[0010] Fig.2 is a diagram drawing a display installed on a display base.

[0011] Fig.3 is a front view of the display base.

[0012] Fig.4 is a diagram drawing a luminous module installed on the display base.

[0013] Fig.5 is a sectional drawing of the display base along the axis 5-5'.

Detailed Description

[0014] Please refer to Fig.1. Fig.1 is a block diagram of a display device 10 according to the present invention. The display device 10 includes a display 12 for displaying image data and a display base 14 for supporting the display 12. The display 12 can be a plasma television or an LCD television.

[0015] The display 12 includes a power module 16 for transferring the external electric power to the operating electric power of the display 12, a first electric connecting port 18 for transmitting the electric power of the display 12 to the display base 14, a light control module 20 for controlling

the electric power transmitted from the first electric connecting port 18 to the display base 14, a control button set 22 installed on the housing of the display 12 for providing users to input a control signal for adjusting settings, like hue, brightness, contrast, of the image. The display 12 further includes a control unit 24 electrically connected to the power module 16, the first electric connecting port 18, the light control module 20, and the control button set 22 for controlling the display 12, and a display unit 26 for receiving image data from the control unit 24 and displaying the image data.

[0016] The display base 14 includes a housing 28 for covering components inside the display base 14, and a luminous module 30 installed inside the housing 28 for emitting the light. The luminous module 30 can include a plurality of light-emitting diodes (LED) for emitting the light or include a fluorescent body for receiving the energy of light from the external light source and releasing the energy of light in a dark situation. The display base 14 further includes a second electric connecting port 32 for connecting with the first electric connecting port 18 of the display 12 and receiving the electric power from the display 12 to the luminous module 30 of the display base 14 to supply the

operating electric power of the luminous module 30.

[0017] Please refer to Fig.2.Fig.2 is a diagram drawing the display 12 installed on the display base 14. The display 12 can be locked on the display base 14 and the display base 14 must be able to support the display 12. Please refer to Fig.3.Fig.3 is a front view of the display base 14. The housing 28 of the display base 14 is made of wear-resisting material and can be made of transparent material. A pattern 34 is on the housing 28 of the display base 14, and the pattern refracts light emitted by the luminous module 30. The pattern 34 can be made from a notch of the housing 28 or a flange of the housing 28. And the pattern 34 can include a mist surface for refracting light emitted by the luminous module 30 better, and the transparent material of the housing 28 also can highlight the luminous effect of the pattern 34. Please refer to Fig.4. Fig.4 is a diagram drawing the luminous module 30 installed on the display base 14. The luminous module 30 can be a strip shape, and there are an array of light-emitting diodes installed on the luminous module 30. The display base 14 includes a groove 36. The luminous module 30 can be inserted into the groove 36 and emit light to the bottom of the display base 14. Please refer to

Fig.5.Fig.5 is a sectional drawing of the display base 14 along the axis 5-5'. There is a hollow room 38 inside the display base 14. The pattern 34 is on the housing 28 around the hollow room 38. The light emitted from the luminous module 30 to the bottom of the display base 14 can disperse to the housing 28 around the hollow room 38. When the light disperses to the pattern 34, the pattern 34 can refract the light to a users eyes. So the user can see the pattern 34 with projecting light. The light-emitting diodes of the luminous module 30 can emit colored light or the transparent material of the housing 28 can be colored, which is for presenting the colorful pattern 34 and the light emitted from the display base 14.

[0018] The working principle of the present invention is as follows. The display 10 can receive the external electric power by the power module 16 and supply the operating electric power to the display 10. The electric power can be transmitted to the display base 14 by the connection of the first electric connecting port 18 and the second electric connecting port 32. The light control module 20 can control the electric power transmitted from the first electric connecting port 18 to the display base 14 so as to control the brightness of the light emitted by the lumi-

nous module 30. Users can use the control button set 22 to control the settings of the light control module 20, like the brightness of the light. Basically when the display unit 26 is displaying image data, the light control module 20 can control less electric power to be transmitted from the first electric connecting port 18 to the display base 14 so as to lower the brightness of the light emitted by the luminous module 30. And when the display unit 26 is not displaying image data, the power module 16 still continues receiving the external electric power for providing the electric power to the luminous module 30 and the light control module 20 can control the more electric power transmitted from the first electric connecting port 18 to the display base 14 so as to control the more brightness of the light emitted by the luminous module 30 for providing the lighting function.

[0019] Additionally, the display base can further include a power supply module for providing the electric power to the luminous module 30. The manner of providing the electric power can be through receiving the external electric power or installing batteries instead of receiving the electric power from the first electric connecting port 18. The working principle is the same as mentioned above, so the

detailed description is omitted.

[0020] In contrast to the prior art, the present invention provides a display device with a luminous display base for improving the aesthetic feeling and artistic value of the display device and providing the lighting function so as to let users find the location of the display device more easily in the dark. The present invention can add value to the conventional display device.

[0021] Those skilled in the art will readily observe that numerous modifications and alterations of the device may be made while retaining the teachings of the invention. Accordingly, the above disclosure should be construed as limited only by the metes and bounds of the appended claims.